

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 35, 37-56, and 58-66 have been cancelled in favor of new claims 69-97. Support for the subject matter of the new claims is provided, for example, in the original claims and paragraphs [0008], [0009], and [0080] of Applicants' published specification. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to any particular aspect of the referenced embodiments.)

Claims 35-41, 45-63, and 65-68 were rejected, under 35 USC §102(b), as being anticipated by Rey "RTP payload Format for 3GPP Timed Text, draft-rey-avt-3gpp-timed-text-01.txt," IETF Internet Draft, September 2003. Claims 42-44 and 64 were rejected, under 35 USC §103(a), as being unpatentable over Rey in view of Ott "Extended RTP Profile for RTCP-based Feedback (TRP/AVPF), draft-ietf-avt-rtcp-feedback-07.txt," Internet-Draft, June 6, 2003. To the extent that these rejections may be deemed applicable to new claims 69-97, the Applicants respectfully traverse as follows.

Claim 69 defines a method for transmitting formatted text from a server to a client in a data packet. According to this method, the server determines whether a format description for a text sample, which is to be added to the data packet, is already included in the data packet. If not, the server adds both the text sample and its format description to the data packet and communicates the packet to the client; otherwise, the server adds only the text sample to the data

packet and communicates the packet to the client. The Applicants' claimed subject matter supports reducing the amount of overhead information communicated to the client (see specification page 3, lines 15-17). More specifically, the Applicants' claimed subject matter reduces packet overhead by adding a text sample's format description to the packet only if the packet does not already include this format description for another text sample.

By contrast to the Applicants' claimed subject matter, Rey does not disclose considering whether two text samples communicated within a single data packet have the same associated format descriptions. Instead, Rey expressly discloses that when the format description is conveyed in-band (i.e., in the same data packet as its associated text sample), a separate format description is included in the data packet for each text sample (see Rey section 4.3, lines 1-5). Stated another way, Rey does not disclose culling identical format descriptions from a data packet and associating a single format description within the data packet with multiple text samples.

For out-of-band communication of the format description (i.e., communicating the format description in a different data packet than its associated text sample), Rey discloses communicating a format description at the initialization phase and updating the initial format description as needed in subsequent data packets. (see Rey section 2.1(1)). Thus, Rey's disclosure of out-of band communication of the format description does not supplement Rey's disclosure of in-band communication of this information with respect to the Applicants' claimed subject matter of adding a text sample's format description to a packet only if the packet does not already include this format description for another text sample.

Accordingly, for at least the above reasons, the Applicants submit that Rey does not identically disclose and, thus, does not anticipate, the subject matter defined by claim 69.

Independent claim 88 similarly recites the above-mentioned subject matter distinguishing method claim 69 from Rey, but with regard to an apparatus. Therefore, allowance of claims 69 and 88 and all claims dependent therefrom is considered to be warranted for at least the above reasons.

Moreover, the Applicants note the following.

a) In support of the applied rejections, the Final Rejection relies upon Rey's disclosure in section 2.1(2) and 2.1(3) (see Final Rejection section 2 and section 4, second through sixth paragraphs, for example). As the heading of Rey's section 2.1 reveals, section 2.1 specifies the requirements that an RTP payload format for 3GPP timed text, defined in the document, should fulfill. However, section 2.1 only outlines the desideratum for the RTP payload format suggested in the document, the actual proposed implementation is found in the subsequent sections of the document.

The Final Rejection's reasoning for the rejections applied to independent claims 35, 56, 58, and 66 is based on Rey's desideratum disclosed in section 2.1. Applicants submit that it is improper to judge the novelty of their claims based on desideratum within a document that does not disclose specifics of an actual implementation of such desideratum.

Rey discloses in section 2.1(3):

Enable the transmit the information contained in the Sample Description Box (stsd) out-of-band and in-band. The reason for out-of-band being that usually a sample description is referenced often from different text samples. To save overhead it is sensible to transmit these pieces of information once at the initialisation (sic) phase and update them accordingly upon demand, if needed. However, the payload format SHALL enable also the in-band transmission for applications like streaming of live-created content (emphasis added).

As may be determined from the first sentence of Rey's disclosure above, Rey's RTP payload format should support out-of-band and in-band transmission of a text sample (format) descriptions. Out-of-band transmission means that the text sample (format) descriptions of all text samples occurring in the session are transmitted separately from the actual text samples, i.e., at a different point in time (here, during the initialization phase) using a different session. In contrast, in-band transmission means that the text sample (format) descriptions are sent within the packets carrying the text samples, i.e., the text sample (format) descriptions and their associated text samples are sent in the same packets.

Rey's next two sentences state that for the case of out-of-band signaling of the text sample (format) descriptions (i.e., during the initialization phase), an update thereof should be possible upon demand. Again, note that this is only a desideratum, but no implementation is proposed.

As indicated by the term "however" at the start of Rey's last sentence, the same is related to a desideratum that the text sample (format) descriptions within the payload format (i.e., the packets) shall also be enabled. The actual implementation of this in-band signaling is described in Rey's section 4.3.

Rey's section 2.1 only describes desideratum of the RTP payload format proposed in the subsequent sections of Rey's disclosure. The Final Rejection does not explain in any detail the reasons why Rey's desideratum disclosed in section 2.1 anticipates the Applicants' claimed invention.

However, as the Applicants' claimed invention describes the steps that have to be performed to form data packets and how to implement the in-band transmission of the text

sample format descriptions (i.e., the invention relates to an implementation), Applicants submit that Rey's disclosure within section 2.1 is insufficient to anticipate the Applicants' claimed invention.

b) The Final Rejection proposes that Rey's desideratum discloses that:

To save overhead it is sensible to transmit these pieces of information once at the initialization phase and update them accordingly upon demand, if needed, in other words the text formats are transmitted at the initialization time and as needed thereafter (e.g. change of the text format) and not in every packet (see Final Rejection, paragraph bridging pages 2 and 3).

However, the Final Rejection seems to overlook that this statement by Rey applies to out-of-band signaling of a text sample description, while the Applicants' claimed subject matter relates to in-band signaling of text samples (this is reflected in the claims by the packets comprising the text sample format descriptions, i.e., the text sample format descriptions are signaled in the packets).

Furthermore, Rey discloses in section 9 that the SDP description of the session (i.e., the protocol information used to describe the session upon initialization thereof) contains a *spldesc-inband* flag that indicates whether the text sample format descriptions are signaled in-band (i.e., within the packets) or out-of-band in the SDP description of the session. In the latter case, the SDP description further includes a *tx3g* field that describes the text sample format description:

The parameter 'spldesc-inband' is used to indicate whether the transport of sample description information takes place in-band. If set, the SPLDESC header MUST be used. The format is:

- spldesc-inband=<flag>, where <flag> is either zero or one to indicate out-of-band or in-band transmission.

The support of out-of-band transmission of sample description is MANDATORY. The support of in-band transmission is OPTIONAL. However clients and servers MUST implement and understand this parameter.

The parameter "tx3q" is used to convey the contents of the sample description entry for each text sample, in base64 encoding format. The syntax is as follows:

-tx3g=<base64-value 1>, <base64-value 2>. This parameter is only required if spldesc-inband is zero. See Section 4. The list of sample entries is not required to follow any particular order. Compression is used because the sample description information may comprise hundreds of bytes. This parameter is present only when 'spldesc-inband' is set to zero." (emphasis added)

Hence, Rey discloses using either in-band signaling or out-of-band signaling of the text sample descriptions. Rey does not disclose a mix of in-band and out-of-band signaling.

Furthermore, in case of transmitting the text sample format description in-band (as in the Applicants' claimed subject matter), an update of the descriptions is not possible. The update of a text sample description would mean that the SPLATTR fields (SamPLe ATTRIBUTES - see section 4.3.1) of the SPLDESC header (SamPLe DESCription see section 4.3) would need to be changed for a given SIDX value. This is, however, explicitly forbidden in Rey's disclosure spanning pages 14 to 15 of section 4.3:

- The contents of the SPLATTR fields for a given SIDX value MUST not be changed during the timed text session. (emphasis added)

Hence, Rey's specification of the RTP payload format does not specify an update of the text sample (format) descriptions, no matter whether they are signaled in-band or out-of-band. For in-band signaling, an update is actually forbidden as outlined above. Only an out-of-band update mechanism is not excluded by the specification, but there is no description of such mechanism by Rey.

c) Returning now to the implementation of the in-band transmission of text sample (format) descriptions disclosed by Rey in section 4.3. Rey's packets are self-contained, in that the received packets can be decoded without dependencies upon other packets (see Rey page 15, lines 5-6).

It follows that each packet must thus contain all text sample (format) descriptions for the text samples conveyed in the packet. This implies that Rey's packet generation process will check for each text sample to be included in a packet, without regard to whether the text sample (format) description for the given packet is already included in the packet or not.

Applicants' claim 69 recites:

determining whether a text sample format description for a text sample to be added to at least one data packet is already included in the at least one data packet for another text sample within the at least one data packet, wherein the at least one data packet is to be transmitted to the client,

if the text sample format description for said text sample to be added to at least one data packet is already included in the at least one data packet, adding said text sample to the at least one data packet.

The recited "at least one data packet" is the one currently formed at the streaming server, i.e., the at least one data packet that is to be transmitted.

The Applicants' claimed invention differs from Rey's disclosure in that the packets are not required to be self-contained. Rey does not disclose determining whether a text sample (format) description for a text sample to be added to a given packet has already been provided to the receiver in an earlier packet, i.e., a packet that has been transmitted previously. The Applicants' claimed subject matter does not add a text sample (format) description to a packet if the text

sample description has been provided earlier, whereas Rey discloses unconditionally adding the text sample (format) description to a packet.

This conceptual difference is expressed in the Applicants' claimed steps of:

if the text sample format description for said text sample to be added to at least one data packet is not already included in the at least one data packet, determining whether the text sample format description for said text sample has already been provided to the client for another earlier text sample in a previously transmitted data packet,

if the text sample format description for said text sample has already been provided to the client, adding said text sample to the at least one data packet,

if the text sample format description for said text sample has not already been provided to the client, adding said text sample and its text sample format description to the at least one data packet.

d) Because each of Rey's data packets are self-contained (i.e., each single data packet must contain all text sample format descriptions), Rey's process of generating a subsequent data packet does not check previously generated data packets for a corresponding text sample format description of a text sample to be added to the subsequent data packet.

Accordingly, the Applicants respectfully submit that Rey does not identically disclose and, thus, does not anticipate the subject matter defined by claim 69. Ott is not cited in the Final Rejection for the above subject matter. Independent claims 88, 89, and 97 similarly recite distinguishing subject matter of method claim 69, but claims 88 and 97 do so with regard to apparatuses. Therefore, allowance of claims 69, 88, 89, and 97 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

Date: March 30, 2010
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